

NFPA FIRE HAZARD SYMBOL  
See NFPA 704 for detailed explanation.

# MATERIAL SAFETY DATA SHEET

No.: 3063 Rev. No.: 1  
Date Prepared: 09/19/85

**Manville**

## I. PRODUCT IDENTIFICATION

Trade Name(s) : THERMO-12® F  
Generic Name: CALCIUM SILICATE THERMAL INSULATION - Thermal CAS #: NONE ASSIGNED  
Chemical Name: CALCIUM SILICATE Formula: CaSiO<sub>3</sub>

Manufacturer: MANVILLE BUILDING MATERIALS CORP.  
Address: P.O. BOX 5108  
City: DENVER

State: CO Zip: 80217

Telephone: (303)978-3120  
Emergency:

## II. PRODUCT INGREDIENTS

INGREDIENT NAME	CAS NUMBER	%	PEL and TLV (except as noted)
SYNTHETIC CALCIUM SILICATE	1344-95-2	95	5 Mg/M <sup>3</sup> (NUISANCE)
GYPSUM	NONE	2-3	(RESPIRABLE DUST)
FIBROUS GLASS	65997-17-3	1	
MAN-MADE ORGANIC FIBER	NONE	1	

## III. PHYSICAL DATA

Appearance and Odor: WHITE ODORLESS SOLID PIPE COVERING OR BLOCK

Boiling Point: NA  
Vapor Pressure: NA  
Water Solubility (%): NIL  
Vapor Density (Air=1): NA

Evaporation Rate (NA = 1): NA  
Specific Gravity (water = 1): 0.27  
Melting Point: NA  
% Volatile by Volume: NA

## IV. FIRE AND EXPLOSION DATA

Flash Point (Method): NONFLAMMABLE  
Flammable Limits: LEL: NA % UEL: NA %  
Extinguishing Media: NA  
Unusual Fire or Explosion Hazards: NONE

NFPA Flammable/Combustible Liquid Classification: NA  
Auto-Ignition Temperature: NA

Special Fire-Fighting Procedures: NONE

## V. HEALTH HAZARDS A. Summary/Risks

Summary: DUST CREATED DURING FABRICATION OR INSTALLATION IS CONSIDERED A NUISANCE DUST. NO KNOWN ACUTE OR CHRONIC HEALTH HAZARDS.

THIS PRODUCT IS NOT CONSIDERED A CARCINOGEN BY NTP, IARC AND OSHA.

Medical conditions which may be aggravated: PRE-EXISTING UPPER RESPIRATORY AND LUNG DISEASES SUCH AS, BUT NOT LIMITED TO, BRONCHITIS, EMPHYSEMA AND ASTHMA.

Target Organ(s): NA

Acute Health Effects: TRANSITORY UPPER RESPIRATORY IRRITATION.

Chronic Health Effects: NONE

Primary Entry Route(s): INHALATION

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## V. HEALTH HAZARDS B. Signs/Symptoms of Overexposure

Inhalation: CONGESTION AND IRRITATION OF THE THROAT, NASAL PASSAGES AND UPPER RESPIRATORY SYSTEM.

Skin Contact: NA

Skin Absorption: NA

Ingestion: NOT HAZARDOUS WHEN INGESTED. MAY CAUSE TEMPORARY IRRITATION TO GI TRACT.

Eyes: TEMPORARY IRRITATION AND INFLAMMATION.

## V. HEALTH HAZARDS C. First Aid/Emergency Procedures

Inhalation: REMOVE TO FRESH AIR. DRINK WATER TO CLEAR THROAT.

Skin Contact: NA

Skin Absorption: NA

Ingestion: NA

Eyes: FLUSH EYES WITH COPIOUS QUANTITIES OF WATER A MINIMUM OF 15 MINUTES. IF IRRITATION PERSISTS CONSULT A PHYSICIAN.

## VI. REACTIVITY DATA

MATERIAL IS STABLE.

HAZARDOUS POLYMERIZATION CANNOT OCCUR.

Chemical Incompatibilities: STRONG ACIDS.

Conditions to Avoid: NONE IN DESIGNED USE

Hazardous Decomposition Products: NONE

## VII. SPILL OR LEAK PROCEDURES

Procedures for Spill/Leak: VACUUM CLEAN DUST CREATED DURING FABRICATION. IF SWEEPING IS NECESSARY USE A DUST SUPPRESSANT.

Waste Management: WASTES GENERATED DURING APPLICATION, DEMOLITION, BREAKAGE OR FABRICATION ARE NOT HAZARDOUS WASTES AS DEFINED BY RCRA (40 CFR PART 261). COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS. METHOD OF DISPOSAL - LANDFILL. RQ - N/A.

## VIII. SPECIAL PROTECTION INFORMATION

Goggles: GOGGLES OR FACE SHIELD SHOULD BE USED DURING CUTTING, OR ABRADING.

Gloves: NOT NORMALLY REQUIRED.

Respirator: USE A RESPIRATOR SUCH AS 3M 8710 OR EQUIVALENT FOR PROTECTION AGAINST NUISANCE DUSTS.

Ventilation: RECOMMENDED AT FABRICATING SITES.

Other: MAINTAIN SUFFICIENT HOUSEKEEPING PRACTICES TO ENSURE MINIMUM DUST LEVELS.

Special Considerations for repair/maintenance of contaminated equipment: USE RESPIRATORY PROTECTION IF IT IS NECESSARY TO CUT OR ABRASE MATERIAL.

## IX. SPECIAL PRECAUTIONS

Storage Segregation Hazard Classes: NA

\*\*\* ALWAYS SEGREGATE MATERIALS BY MAJOR HAZARD CLASS \*\*\*

Special Handling/Storage: KEEP MATERIAL DRY.

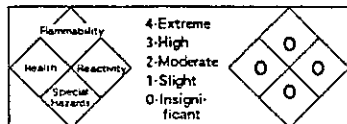
Special Workplace Engineering Controls: POWER CUTTING EQUIPMENT SHOULD BE EQUIPPED WITH DUST ABATEMENT DEVICE.

Other: NONE

Prepared/Revised by: KENNETH A. ROBERTS

Title: MGR., ENVIRONMENTAL SERVICES

As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state law(s). However, no warranty or representation with respect to such information is intended or given.



NFPA FIRE HAZARD SYMBOL†  
See NFPA 704 for detailed explanation.

## MATERIAL SAFETY DATA SHEET

No.: 3250 Rev. No.: 2  
Date Revised: 05/13/85

# Manville

### I. PRODUCT IDENTIFICATION

Trade Name(s) : THERMO-MAT

Generic Name: REFRACTORY CERAMIC FIBER INSULATION - *Refractory* CAS #: NONE ASSIGNED

Chemical Name: ALUMINA SILICA

Formula: MIXTURE

Manufacturer: MANVILLE BUILDING MATERIALS CORP.

Address: P.O. BOX 5108

City: DENVER

State: CO

Zip: 80217

Telephone: (303)978-3120

Emergency:

### II. PRODUCT INGREDIENTS

INGREDIENT NAME	CAS NUMBER	%	PEL and TLV (except as noted)
REFRACTORY CERAMIC FIBER	NONE	100	2F/CC*
CRYSTALLINE SILICA (CRISTOBALITE) WILL FORM AFTER SERVICE AT TEMPERATURES >1000° C. THE "AFTER SERVICE" DUSTS WILL TYPICALLY CONTAIN >20% CRISTOBALITE.	14464-46-1	>20	1/2((10MG/M <sup>3</sup> )/(%SiO <sub>2</sub> +2))

\*MANVILLE WORKPLACE EXPOSURE GUIDELINE.

### III. PHYSICAL DATA

Appearance and Odor: WHITE NEEDLED BLANKET-NO ODOR.

Boiling Point: NA

Vapor Pressure: NA

Water Solubility (%): NIL

Vapor Density (Air=1): NA

Evaporation Rate (NA = 1): NA

Specific Gravity (water = 1): 2.6

Melting Point: >3000° F

% Volatile by Volume: NIL

### IV. FIRE AND EXPLOSION DATA

Flash Point (Method): NONFLAMMABLE

Flammable Limits: LEL: NA % UEL: NA %

Extinguishing Media: NA

Unusual Fire or Explosion Hazards: NONE

NFPA Flammable/Combustible Liquid Classification: NA

Auto-ignition Temperature: NA

Special Fire-Fighting Procedures: NONE

### V. HEALTH HAZARDS A. Summary/Risks

Summary: THIS PRODUCT IS UNDER INVESTIGATION AS A POSSIBLE ANIMAL CARCINOGEN. ANIMAL STUDIES TO DATE ARE INCONCLUSIVE. EXPOSURES TO DUST FROM THIS PRODUCT SHOULD BE MINIMIZED UNTIL FURTHER ANIMAL AND HUMAN STUDIES ARE COMPLETE.  
THIS PRODUCT IS SUSPECTED TO BE AN ANIMAL CARCINOGEN.

Medical conditions which may be aggravated: PRE-EXISTING UPPER RESPIRATORY AND LUNG DISEASES SUCH AS, BUT NOT LIMITED TO, BRONCHITIS, EMPHYSEMA AND ASTHMA.

Target Organ(s): LUNG AND SKIN

Acute Health Effects: IRRITATION OF SKIN AND UPPER RESPIRATORY SYSTEM.

Chronic Health Effects: NO HUMAN EXPOSURE STUDIES WITH THIS PRODUCT HAVE BEEN REPORTED. AFTER SERVICE DUSTS CONTAIN CRISTOBALITE. PROLONGED EXPOSURE TO "AFTER SERVICE" DUSTS MAY CAUSE LUNG DISEASE (SILICOSIS).

Primary Entry Route(s): INHALATION AND SKIN CONTACT.

## V. HEALTH HAZARDS B. Signs/Symptoms of Overexposure

Inhalation: IRRITATION OR TICKLE IN THROAT AND NOSE.

Skin Contact: TEMPORARY IRRITATION OR RASH.

Skin Absorption: NA

Ingestion: MAY CAUSE TEMPORARY IRRITATION OF GI TRACT.

Eyes: TEMPORARY IRRITATION OR INFLAMMATION.

## V. HEALTH HAZARDS C. First Aid/Emergency Procedures

Inhalation: REMOVE TO FRESH AIR. DRINK WATER TO CLEAR THROAT AND BLOW NOSE.

Skin Contact: WASH AFFECTED AREAS GENTLY WITH SOAP AND WARM WATER.

Skin Absorption: NA

Ingestion: NA

Eyes: FLUSH EYES WITH COPIOUS QUANTITIES OF WATER A MINIMUM OF 15 MINUTES. IF IRRITATION PERSISTS CONSULT A PHYSICIAN.

## VI. REACTIVITY DATA

MATERIAL IS STABLE.

HAZARDOUS POLYMERIZATION CANNOT OCCUR.

Chemical Incompatibilities: HYDROFLUORIC ACID

Conditions to Avoid: NONE IN DESIGNED USE.

Hazardous Decomposition Products: NONE HAVE BEEN DETERMINED.

## VII. SPILL OR LEAK PROCEDURES

Procedures for Spill/Leak: VACUUM CLEAN DUST WITH EQUIPMENT FITTED WITH HEPA FILTER. IF SWEEPING IS NECESSARY USE A DUST SUPPRESSANT.

Waste Management: WASTES GENERATED DURING APPLICATION, DEMOLITION, BREAKAGE OR SPILLAGE ARE NOT HAZARDOUS WASTES AS DEFINED BY RCRA(40 CFR PART 261). COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS. METHOD OF DISPOSAL-LANDFILL. RQ-N/A.

## VIII. SPECIAL PROTECTION INFORMATION

Goggles: GOGGLES OR FACE SHIELD ARE RECOMMENDED PARTICULARLY WHEN WORKING OVERHEAD.

Gloves: NOT NORMALLY REQUIRED.

Respirator: 3M9900 OR EQUIVALENT FOR EXPOSURES BETWEEN 2F/CC AND 5F/CC AND/OR UP TO 10 TIMES CRISTOBALITE PEL. SURVIVAIR FULL FACE PIECE 1090-00 OR EQUIVALENT ABOVE THESE CONCENTRATIONS.

Ventilation: USE ADEQUATE EXHAUST VENTILATION WHEN INSTALLING. USE DUST COLLECTION WHEN TEARING OUT.

Other: ABOVE 50F/CC AND/OR 100 TIMES THE CRISTOBALITE PEL USE MSA 01-00-06 FULL FACE PIECE TYPE C SUPPLIED-AIR RESPIRATOR OR EQUIVALENT.

Special Considerations for repair/maintenance of contaminated equipment: USE PROPER RESPIRATORY PROTECTION.

## IX. SPECIAL PRECAUTIONS

Storage Segregation Hazard Classes: NA

\*\*\* ALWAYS SEGREGATE MATERIALS BY MAJOR HAZARD CLASS \*\*\*

Special Handling/Storage: KEEP MATERIAL DRY

Special Workplace Engineering Controls: ADEQUATE VENTILATION TO KEEP DUST LEVEL TO BELOW PEL/TLV.

Other: FOR ADDITIONAL INFORMATION, REFER TO MANVILLE SERVICE CORP BULLETIN HSE-66, AVAILABLE FROM: HEALTH, SAFETY & ENVIRONMENT DEPT., MANVILLE SERVICE CORPORATION, P.O. BOX 5108, DENVER, CO 80217

Prepared/Revised by: KENNETH A. ROBERTS

Title: MGR., ENVIRONMENTAL SERVICES

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